

## REMARKS

In accordance with the foregoing, the claims 1, 4, 7, 9 and 12-14 have been amended. Claims 2-3, 8 and 10-11 has been cancelled. Claims 1, 4, 7, 9, 12-14 and 15 are pending and under consideration.

Claims 1-4 and 7-14 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2002/00355152 to Moreno. Moreno is a publication of Application Serial NO. 09/905,383, which was filed on July 12, 2001. On the other hand, the present application claims priority to January 17, 2001. The present application predates Moreno application Serial No. 09/905,383.

Moreno claims priority to provisional Application No. 60/218,400 filed on July 14, 2000. Accordingly, at least a portion of Moreno traces back to July 14, 2000, which is before the January 17, 2001 priority date of the present application. The Examiner relies on paragraph [0064] and [0065] of Moreno. Paragraph [0064] is similar to, but slightly different from, the paragraph that appears at page 17, lines 4-14 of the provisional application. Accordingly, a portion of paragraph 64 does not trace back to July 14, 2000. Perhaps more importantly, the Examiner relies heavily on paragraph [0095] of Moreno. On the other hand, the provisional application ends at page 21. The last paragraph of the provisional application corresponds to paragraph [0081] of Moreno. Paragraphs [0082]-[0112] were added when the non-provisional application was drafted. Paragraphs [0082]-[0112] only trace back to July 12, 2001. These paragraphs are not prior art.

Still further, the Examiner relies heavily on Fig. 6B of Moreno. The provisional application contained four drawings, these drawings correspond with Figs. 1-4 of Moreno. Figs. 5A-8 were added when the non-provisional application was drafted. Figs. 5A-8 are not prior art.

Because important parts of Moreno are not prior art, it is respectfully requested that the anticipation rejection be withdrawn.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Serial No. 10/046,257

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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## SYSTEM AND METHOD FOR REMOTELY COORDINATING THE SECURE DELIVERY OF GOODS

### 5 FIELD OF THE INVENTION

The present invention relates to the field of secure delivery systems which utilize, coordinate, deliver, and securely store goods at a location remote from the merchant of such goods. The present invention allows a customer to request the delivery of goods from a vendor, and coordinates the delivery of these goods to a secure locker can be retrieved by the customer, at his or her convenience.

### 10 BACKGROUND OF THE INVENTION

15 The acceptance of the Internet for commercial transactions by the public has afforded tremendous opportunities for new and existing companies in the fields of merchandising and delivery. The customer is now faced with the pleasant challenge of being able to select a wide variety of goods and services that include books, music, compact discs, videotapes, clothing, food, medicine, and prepared meals via a personal computer or similar electronic device. Customers are often able to place an order at their convenience , and arrange for payment and delivery, often without human intervention by the vendor.

20 Many companies are striving to use the new Internet technology to revive older types of sales and service franchises. In particular, home delivery of perishable food products invokes the memory of the old milk and egg or ice delivery systems popular until the middle of this century. Other companies merchandise general products like books, compact discs, clothing, videotapes, and small household

items. Typically the merchants use a general-purpose shipper to complete the delivery step, like the United Parcel Services (UPS ®), the U.S. Postal Service® (the “mail”), and FedEx. Another category of delivery service firms are those that perform routine errands for people, for example, the pick-up and delivery of dry cleaning.

5           A critical aspect of order fulfillment is the actual placing of goods in the customer’s hands. In many cases, the delivery location is specified by the customer, but the actual delivery date and time are specified by the deliverer. In many other cases, the customer can make a specific appointment with a particular vendor for a shipment receipt within a certain specified delivery time window: for example, “on Tuesday, March 16, between 3:00 p.m. and 3:30 p.m.” However, these types of delivery services  
10 are often not available, or are more expensive, or are interrupted due to unplanned changes in either the delivery service or the customer’s schedule.

15           Modern consumers are challenged by busy work and social schedules and often do not have the time or opportunity to arrange for the personal delivery or pickup of items at times convenient to both the merchant and the customer. This is especially the case with delivery systems such as the mail and UPS which often deliver only during normal business hours, when the customer is also working. Since delivering personal items at a work location is often undesirable, impractical, and impossible, many customers can not conveniently receive goods via delivery systems currently available.

20           Various solutions to these problems in conveniently delivering goods and services have been attempted. Generally, these solutions only address the delivery aspect of the purchase/fulfillment circle and require the customer to be present at a more opportune time. Such solutions often do not address the vendor’s or the delivery service’s needs to reduce and/or eliminate missed deliveries, concerns with

theft, payment considerations, receiver authorizations, and various other concerns. In the simplest case, for a locally furnished item, the customer may often elect to pick-up the product at the merchant's or shipper's location. Typical examples include dry cleaners, and going to a will-call window or a receiving dock. Other solutions include specifying precise delivery locations and time windows when the customer is at a specific location (for example, pizza delivery services). All of these solutions, however, inherently contain inefficiencies for the customer, the vendor, and/or the delivery service.

Therefore, a system is needed which enables a customer to specify a delivery or pick-up of goods while allowing a vendor and/or delivery service to schedule the pick-ups/deliveries based upon their schedules and needs and not necessarily based upon a particular customer's needs or availability.

Additionally, such a system reduces deliverer and vendor concerns with payment by not having to carry cash or make change, while also maximizing a delivery service's utilization of resources by eliminating subsequent delivery attempts. The system would also minimize the amount of time a customer has to wait to receive specific goods and/or services, and eliminate the need for the customer to personally wait to sign for a delivery. The system should provide opportunities for merchants to accumulate and schedule related deliveries and to offer marketing opportunities for increasing business to others (i.e., to the areas of delivery).

### **SUMMARY OF THE INVENTION**

According to the present invention, a system and method for aggregating customer orders and delivery fulfillment requirements is provided. The system and method utilizes a storage container or box which contains a plurality of individual lockers. The lockers may be of varying sizes, and configurations,

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and may provide heating, cooling, and other environmental features. The box is coupled to a server which allows a customer to place an order for the delivery or pick-up of goods. The server also allows a merchant to identify those customers or potential customers to whom additional bargains, offers, or promotions may be made. By aggregating the demand for a given good at particular locations, the vendor is able to lower delivery costs and offer a discount to the customer.

The system and method of the present invention further enables vendors, delivery services, and customers with a system that allows them to reserve lockers in advance, from a remote location, for example via a wireless communications device. By reserving the lockers, vendors and deliverers are assured that a receptacle for delivering or receiving an order will be available on a specific date, at a specific time, thereby eliminating the need to return to a location because of a missed delivery. Additionally, customers will be assured by the present invention that their delivered goods will be at their designated location, on a specific date in a secure receptacle until they can arrive to claim the goods.

#### **BRIEF DESCRIPTION OF THE DRAWING FIGURES**

Figure 1 provides a schematic representation of a preferred embodiment of a system utilized to provide the various features and functions of the present invention.

Figure 2 provides a schematic representation of a preferred embodiment of a storage unit utilized in the present invention.

Figure 3 provides a flow diagram illustrating the basic methodology utilized in the present invention.

Figure 4 provides a flow diagram illustrating a preferred embodiment of the methodology utilized by the present invention.

## **DETAILED DESCRIPTION OF THE INVENTION**

5 As shown in Figure 1, a preferred embodiment of the present invention includes a system 100 which provides for the secure storage of goods (or serviced goods) desired by a customer from a vendor. The system 100 utilizes at least one "box" 120 which provides an enclosure in which goods may be securely stored until the customer or the vendor (in the case of a pick-up order), directly or through a third party, is available to receive the goods. For purposes of this description, the term "box" shall be construed to include any device or structure which is suitable for securely storing goods of any size, shape, fungibility (i.e., capable of providing environmental or other specialized features), or any other characteristic. As such, the system is not limited to stationary boxes, single compartment boxes, multiple compartment boxes, refrigerated boxes, heated boxes, closet boxes (for example, for storing dry cleaning), or any other type of storage device or structure. The system may be utilized, for example, in conjunction with shipping containers, garages (for example, used to secure an automobile, furniture, or other large items), fixed location boxes (for example, a box attached to dwelling unit, a vendor's facility, or any other structure or location), transportable boxes (for example, one capable of being transferred by a delivery service to a customer's delivery address, and any other box which is utilized in conjunction with the various features and functions of the system 100, as described herein.

20 The box 120 may be located at any location desired, and is not to be construed as being limited to boxes located at a customer's premises. The box 120 may be provided, for example, within a



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vendor's or a delivery service's facility (for example, in a grocery store), at a central location (for example, at a MailBoxes Etc.® location), or anywhere else. Additionally, the box may include any feature or function desired to efficiently and securely deliver goods to a customer including, for example, access points providing entry into the box from both inside and outside a house. For example, a dry cleaner might utilize a box, accessible after hours, which allows a customer's clean clothes to be rotated into a locker, and retrieved therefrom, upon the entry of the customer's access code. For such an embodiment, only one locker might be needed to service the dry cleaner's numerous clients.

The box 120 preferably includes a lock 118 which is remotely controlled. In the preferred embodiment, the lock 118 is an electronically activated lock such as a MailLok® or TraveLok®, both of which are manufactured by SmartLok®. Those skilled in the art appreciate the various types of locks available which may be utilized by the system 100 to secure the box 120 and provide controlled access to the interior of the box 120. As such, the system is not limited to a specific lock, set of locks, or even electrically activated locks, e.g. solenoid. Hydraulic locks, electro-mechanical locks, and various other locking systems may be utilized as desired for a specific implementation.

Each lock 118 and access to each box 120 is preferably controlled by a controller 116. The controller 116 is preferably a computer workstation, however, similar control devices, which are well known in the art, may be utilized, as desired or needed. The controller 116 is connected to a user verification device 114. In the preferred embodiment, a keypad (by which a person desiring access to the box 120 inputs a numeric or alphanumeric code, a pin number, a user sign-on, a password, or a similar identifier) is utilized as the user verification device 114. However, the system 100 may also

utilize card readers, electromagnetic or infrared connections to a Personal Data Assistant (PDA) or other device containing an access code or similar identifier. As is commonly known in the art, the access code/identifier may also be suitably encrypted or transmitted in plain text. Similarly, existing access control technologies utilized in, for example, garage door openers, voice recognition technology, fingerprint analyzers, retinal scanners, and similar devices which verify a person is authorized access to a box or an area may be utilized in conjunction with the system 100.

Preferably the controller 116 is co-located with the boxes which are being controlled. However, the controller 116 may also be remotely located relative to the box 120, the locks 118, and/or the user verification device 114, while providing the various security features and functions discussed herein. For example, the system 100 may be configured such that a centrally located controller 116 controls access to numerous boxes 120 via a wire or wireless communications link 142. In this alternative embodiment, each of the boxes or groups of boxes is accessible via a user verification device 114, which establishes either a wired or a wireless communications link 144 with the controller 116 and/or the box 120. In such a configuration, a customer has immediate access to a box 120, upon entry of the appropriate access code (or similar identifier), and need not visit a centralized controller. Such a configuration may be desirable, for example, in a large apartment complex in which numerous boxes 120 are located throughout the complex but only one controller 116 is needed to control access to the boxes 120.

As mentioned above, the user verification device 114 may also be remote to the box 120 and/or the controller 116. Those skilled in the art appreciate that the communications link 144 between the user verification device 114 and the controller 116 may be a wireless link. The user verification

device 114 also need not be a dedicated unit. Instead, various remote control devices (such as, a garage door opener, PDA, and a wireless telephone) may be utilized to establish a communications link and/or provide the access code (or user identifier) over a wireless link to the controller 116. Therefore, the access and control features of the system 100 may be provided without requiring a dedicated  
5 controller 116 or a dedicated user verification device 114 for each box 120 or group of boxes.

Referring still to Figure 1, the controller 116 is preferably connected via the Internet 106 and communications links 140 and 132 to a service provider's server 102 (or in certain embodiments, to a vendor or delivery service's server). The communication links 140 and 130 may be wired or wireless. The server 102 preferably provides the software and hardware necessary to provide the various  
10 features and functions of the system 100 discussed herein and those known in the art. In the preferred embodiment, the server 102 utilizes a Microsoft Windows NT based system, however, other comparable computer systems and operating systems may be utilized. Such systems and platforms are well known in the art and are not discussed further herein.

The server 102 is preferably connected to a database 108 via either a direct communications  
15 link 134, an Internet link 136, or both. The server 102 may also be connected to multiple databases (for example, one for each community), as is well known in the art. The database 108 stores customer and vendor information including passwords, sign-ons, access codes, box locations, web pages, and any other information necessary. Similarly, the system 100 includes connections (via the Internet or directly) between the server 102 and customer devices 104, devices for delivery services 112, and  
20 vendor devices 110. The communications links may be wired or wireless. Additionally, any device capable of establishing a connection with the server 102 directly or via the Internet may be utilized by

the system 100 for receiving web pages and similarly formatted and/or communicated information.

Further, the customer's device 104 might, in certain embodiments, include a personal computer or a

PDA or an Internet equipped telephone. Similarly, the vendor's device 110 might be a computer

workstation or a second server while the delivery service may utilize encrypted or non-encrypted

5 wireless telecommunications links to mobile units (for example, UPS trucks). As such, the system 100

is not limited to any specific devices or configurations.

As mentioned previously, the system 100 is not limited to any specific size or configuration for a

box 120. Figure 2 provides a representation of an embodiment of a multi-compartment box 200. As

shown, the box 200 includes a central kiosk 202, various storage lockers 206, and a communications

10 link 204 connecting the kiosk 202 to the lockers 206. In a preferred embodiment, the communications

link 204 utilizes an ethernet link, however, various other communications links may be utilized including,

but not limited to, serial cables and parallel cables. Further, the lockers 206 may be provided in any

size, configuration, number, location, and capabilities, for example, lockers containing clothing rods,

drop slots for videos, mail boxes, refrigerated lockers, heated lockers, and self-sterilizing lockers may

15 be included, as desired, in the box 200.

The kiosk 202 preferably includes a personal computer. As those skilled in the art appreciate,

a kiosk may come in varying sizes, shape, configurations and utilize various components including

monitors, processors, data entry devices, output devices, and other components. As such, the kiosk

202 may include any of these and other components in any configuration desired. In a first

20 embodiment, one such configuration utilizes a processor, keypad, and an LCD display. In the

preferred embodiment shown in Figure 2, the kiosk 202 includes a personal computer which has been

broken out into its commonly provided functional components, including: a processor 214, a communications interface device (i.e., a modem) 216, a memory or storage device 218, a keyboard, 212, and a monitor 208. As specific needs require, these various functional components may be added, deleted, or substituted, in the kiosk 202, as desired. For example, a relatively non-complex kiosk might exclude the monitor. Similarly, the keyboard may be excluded and instead a scanner 210 (retinal, fingerprint, voice) used to determine a user's identity and/or access authorizations. Similarly, various other data input and output devices may be utilized including, but not limited to, speakers, LCD panels, touch screen displays, magnetic card readers, video cameras, printers, infrared data transceivers, and bar code scanners.

The processor 214 controls the unlocking and locking of the lockers 206 as well as monitoring environmental conditions, monitoring safety and security features, and performing other functions as required by the specific use for the locker. The box 200 may also be equipped with fire suppression systems, fire alarms, smoke detectors, and burglar or intrusion alarms. Similarly, lockers 206 may be replaced with, or include, ATM's, stamp dispensers, soft drink and snack food machines, and any other device, all of which may be suitably controlled and monitored by the kiosk 202. Payment systems may also be included in the box 200 or the kiosk 202, including credit/debit card readers, change machines, billing to an account, etc.

As mentioned previously, the box 200 preferably utilizes an ethernet connection 204 to provide the communications links between the kiosk 202 and the lockers 206. A serial or parallel link, however, may also be utilized, if desired. The ethernet connection 204 suitably allows for the addition or removal of lockers with requiring the rewiring and/or significant reprogramming of the kiosk,

operating software, or the box 200. As such, in the preferred embodiment, lockers 206 may be added or removed, as necessary from a box 200. The addition or subtraction of devices to ethernet, serial, and parallel data connections are well known in the art. The box 200 may utilize any such connections, or others, as needed.

5           Referring now to Figure 3, the process, by which a customer utilizes the system 100 and/or box 200 to receive and/or drop-off goods for delivery/pick-up, preferably begins when a customer communicates a request for goods/services (Block 302) to a system implementing the invention. As mentioned previously, in the preferred embodiment, the customer's request may be communicated to an implementing system via a variety of devices and communications links. For example, a customer requesting the delivery of groceries from an online grocery store may submit a request via a web page. Alternatively, a customer wishing to notify a movie rental chain that a movie is ready for return to their store and is going to be dropped into a return locker, may utilize a bar code reader, provided in a kiosk, to scan the movie and then drop the VHS cassette into a video return slot provided in a locker. In such a situation, the customer might be considered as having returned the movie on-time without having to actually drive to the movie rental store. Additionally, since the movie rental chain is notified, at the time of return, which movie is being returned, the chain may then notify customers on a wait-list that the desired movie is available. In certain embodiments, the locker might even be equipped to dispense the movie at the return box to another customer (for example, one in the same apartment complex or community) without requiring the movie rental chain to fetch, rewind, and restock the movie. Therefore, various other methods and systems for notifying a service provider that a customer

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requests goods/services may be utilized. The system and methodology of the present invention is not limited to any specific embodiments, hardware, or processes.

After the customer request has been received by the service provider, the request is then processed (Block 304). Depending upon the type of request, and the nature of the goods/services requested, this processing may encompass numerous steps or very few and may require contacting third party vendors, delivery service providers, and others. As such, the present invention is not to be construed as being limited to any specific request processing methodology and may encompass various processes, as necessary. For example, the request for the delivery of groceries may entail contacting a grocery provider, taking delivery of the groceries at the service provider's facility, or storing the groceries at the store, arranging delivery of the groceries, and determining which grocery delivery containers need refrigeration (recyclable containers could be utilized, for example, with a deposit credited to the customer's account upon return of the containers to a locker). In contrast, a request for a delivery of a pizza may require making the pizza, preheating the heated locker, and delivering the pizza to the locker.

Next, the process continues with delivering the goods/service to the box, or in the case of a return item or a laundry request, picking-up the goods from the box. (Block 306) Depending upon the vendor providing the goods/services, delivery may be obtained by a designated deliverer, by a commercial deliverer (UPS, FedEx, the mail, etc.), or by another entity (for example, by the service provider who receives the goods from the vendor and then delivers the goods to the appropriate lockers).

Once delivery/pick-up of the goods is accomplished, a system implementing the process preferably notifies the customer of that event (Block 308). At this time, additional information may be provided to the customer. For example, a customer dropping off laundry for the dry cleaner may be notified when his dry cleaning will be returned. Similarly, for returned goods, the notification may include a tracking number, estimated repair time, or any other information. The customer may be notified of such information by any systems or methods known including, but not limited to, e-mail, page, telephone call, letters, audio and/or visual messages provided by the kiosk, and web postings.

When the service includes the delivery of goods, the process continues with the customer receiving the goods from the box (Block 310). The process preferably allows a customer to remove goods from the locker within a pre-set time period from entering the access code. In this manner, the customer is preferably not prohibited from retrieving the goods when the locker is inadvertently closed before all of the goods are removed. At this point, a transaction is completed - the customer has requested and taken delivery of the requested goods. Depending upon the billing arrangements desired, the present invention may be configured to require pre-payment, payment at time of receipt (for example, by swiping a credit card through a card reader provided on the kiosk prior to allowing access to the locker), or payment upon inspection (i.e., the customer's credit card is automatically billed within a fixed time period upon opening a locker. Such a feature might be desired when ice cream is melted or a pizza cold, clothes wrinkled, etc. due, for example, to a delivery or locker failure). The system might also be provided free of charge, or subject to a minimal membership fee, to the customer or community member, with the vendor and/or delivery services bearing any other charges or costs.



Once the customer has removed the goods from the locker, the server is notified by the kiosk or controller that the locker is now available (Block 312). At this point, the process reconfigures any systems utilized for the finished request (for example, turns off heating/cooling, ventilation, security systems, or the like), as applicable, and then repeats itself, assigning lockers for the delivery or pick-up of goods, and unassigning lockers upon completion of the requested activity. Additionally, when a locker is commonly utilized for storing goods needing refrigeration/heating/ventilation such systems may not be turned off between every event, as desired by the local needs and conditions.

Referring now to Figure 4, a more detailed, preferred embodiment of the process of the present invention is depicted. As shown, the process begins when a customer registers with a service provider and obtains a password, username and access code (Block 402). The service provider may be a centralized service provider providing goods and services from multiple vendors, such as IdealRental®, or it may be an e-commerce provider, a local vendor, an affiliate, or any other entity providing the systems and methodologies specified herein. In the preferred embodiment, a customer uses the same access code to access a locker, and thereby is not required to recall ever changing access codes. Actual access to the lockers is controlled by the server for the service provider and/or the kiosk. Once the customer has registered with the service provider, the process continues with the customer placing an order with the service provider (Block 404). As for the process shown in **Figure 3**, the preferred embodiment allows a customer to submit an order in numerous ways, including via the Internet, via the kiosk, telephonically, via a wireless PDA, or via any other system or device. In certain instances, where a customer's request is not supported by the service provider's automated systems, customer support personnel may be suitably connected to the customer to assist in processing the request.

Additionally, when an order is placed, preferably the customer specifies whether the order is for delivery or pick-up (Block 406).

When the order is for pick-up, the process continues with the service provider determining which locker(s) is available for the customer's needs. The service provider then directs the controller or kiosk to open/unlock the designated locker upon receiving the customer's access code (or in the case of the customer desiring service at the kiosk itself, the locker is then unlocked). Additionally, when multiple pick-up options are provided, the service provider preferably allows a customer to specify a priority for the pick-up (for example, a dress that has to be worn that evening might receive a highest priority - and depending upon various factors, such as the amount of lead time to process the request, a higher charge). At this time, as necessary, the service provider may establish a communications link with the vendor providing the desired goods/services and/or the delivery service(s) to determine whether the customer's order can be supported. Depending upon the systems used by the customer, appropriate messages are then provided by the service provider either automatically or by customer support personnel to the customer detailing the status and expected pick-up, completion, and other information for the order.

When the order is for delivery, the process proceeds to determining which service provider to utilize to process the order (Block 410). Additionally, the service provider determines whether aggregation of delivery or pick-up orders is possible. Aggregation basically provides for maximizing a vendor's or deliverer's efforts such that the maximum efficiencies possible are obtained. For example, instead of making repeated deliveries throughout a given time period to a particular neighborhood, the

present invention enables a vendor to accumulate deliveries for the neighborhood and then make one or a minimum number of trips within a given time period.

The present invention also enable a vendor to accumulate orders for a neighborhood by offering specials, promotions and other marketing offers to potential customers in a neighborhood or area already scheduled to receive a delivery from the vendor. For example, for a pizza vendor, such aggregation might include offering specials over the Internet to the neighbors of a requesting customer in order to increase the number of deliveries to a certain area at one time. Specials could be made in the form of a banner on a customer's, a community, or multiple community web pages for a great deal on a specific day. This special might be offered and visible to community members or individual customers a few days or hours prior, as desired. By so providing such notifications and specials, the vendor is provided with the opportunity to maximize sales while offering a one-time efficient delivery. For example, a grocer or restaurant needing to divest of excess or soon to expire food products may offer specials to regular customers, community groups, all customers, charitable organizations, or the like. By utilizing the systems and methods described herein, the vendor may aggregate purchases and delivery of goods and/or services. Similarly, for a deliverer such aggregation efforts might include maximizing a driver's route such that a specific box is visited only once in a day.

When determining how to aggregate the services being provided, the service provider preferably determines how many additional boxes/lockers are available (Block 412), before offering specials to additional customers (Block 414). Preferably, sufficient lag time is also accounted for in such determination so that the tardiness of a pick-up does not impact a delivery. Upon aggregating the orders, the process then continues with notifying the customer, vendor, and/or deliverer of the

delivery/pick-up schedule (Block 416). As orders are received throughout a day or week, the delivery/pick-up schedule may vary -the process appropriately notifies the customer, vendor, and/or deliverer of such changes.

When the deliverer/pick-up person arrives at the box, the delivery service appropriately provides the designated tracking code, access code, or other required verifications (Block 418). The box then communicates such code to the service provider server or customer service personnel (for example, a verbal verification) (Block 420), whereupon a comparison is conducted with the authorized code (Block 422). If the comparison fails, the delivery service is suitably requested to reenter the code/verification (Block 426). Depending upon the local, environmental conditions, and other factors, repeated failures to provide the correct code/verification may result in video images being captured, alarms being sounded, or the system terminating the session (Block 442). In an alternative embodiment, instead of the verifications being conducted at the service provider server, these verifications are conducted at the kiosk. However, the invention is not limited to any specific embodiment or methodology for verifying access requests.

When the code/verification input by the deliverer is correct, the process continues with the locker being unlocked, and the delivery service delivering or picking-up the desired goods and closing the door (Block 424). Upon closure of the locker door, the compartment is appropriately locked and further access is not allowed to the deliverer or other persons. However, in certain embodiments, in which repeated access to the compartment is required, for example, when delivering numerous goods to a locker requiring multiple trips from a delivery vehicle, the present invention may be configured to secure a locker and allow repeated access to the locker by a deliverer over a specified or determinable

time period or, for example, until a deliverer enters a code designating completion of the delivery/pick-up trip.

Upon delivering /picking-up the goods and securing the locker, the system then notifies the customer of the goods delivery/pick-up (Block 426). The notification may come via any

5 communications system desired and supported by the specific system implementing the present invention, including, but not limited to, fax, e-mail, phone message, and paging.

When a pick-up is requested, the process then preferably continues with the estimation and notification of a return date, required pick-up time, or other time constraint, if any (Block 428). For example, a system might be configured to notify a customer that the heated locker will only remain at 200 degrees for 45 minutes, at which time the food contained therein may cool down and spoil. Similarly, the service provider might notify the customer that their dry cleaning will be returned the next day between 5 and 6 p.m.

When the customer desires to receive his delivered goods, the customer suitably enters the access code or other verification (Block 430). The system then verifies the accuracy of such access code/verification (Block 432). If the access code/verification is incorrect appropriate measures are taken (as provided for in the case of the deliverer's failed verification) (Block 434). When the access code/verification is correct, the locker is unlocked and the customer then allowed to retrieve the goods (Block 436). Upon removing all goods and/or securing the locker, the service provider is notified that the customer has received the goods and the locker is available (Block 438). The service provider, as dictated by specific needs, may then notify the vendor and others of the completed transaction (Block 440), at which point the process restarts.

The before mentioned systems and processes are further explained with reference to the following examples of specific utilizations of the present invention.

Major E-Commerce Partner Example: An IdealRental customer places an order at 10am with Grocery123.com. After finalizing his list and placing his order, he chooses delivery by 6 p.m. that evening. The order is generated and is routed to Grocery123.com for fulfillment and to IdealRental.com for tracking. The order is then assigned a unique order number which is used for tracking. Upon determination of the order size, locker requirements, and an estimated time of delivery, this information is then communicated to IdealRental.com's servers, which reserve in a database the lockers needed for the order.

Also, as needed, refrigeration may be set for these lockers to start at a specific time prior to delivery. Based upon the order, Grocery123.com, or the service provider, determine that the order needs three medium sized lockers for delivery at approximately 4:30 p.m. The IdealRental.com's servers (IR servers) then determine the resident PIN # (if using touch-pad entry). Based upon delivery around 4:30 p.m., the IR servers reserve lockers 12, 21, and 23 and set the climate control to start cooling at 4:00 p.m. Also, a unique delivery PIN # is randomly generated for this order and is provided to Grocery123.com via the IR server interlink with the major E-Commerce partner. The IR servers connect to the IP address of the appropriate box and give the above information to the kiosk or controller. The kiosk receives the PIN #, sets the entry number for access to lockers 12, 21, and 23, and directs the lockers to begin cooling at 4:00 p.m. Lockers 12, 21, and 23 are now programmed to be opened upon the kiosk receiving the unique delivery PIN#.

At 4:23 p.m., the delivery of the order by Grocery123.com occurs. The delivery service enters the unique delivery PIN # at the kiosk and lockers 12, 21, and 23 are unlocked. The deliverer then places the ordered items into the three already cooled locker units and shuts the doors. At this point, the kiosk sends notification to the IR servers that the delivery has been made. The IR servers then notify the customer (via whatever method he chooses per his account information) that the delivery has been made. Also, the IR servers now tell the kiosk, via the internet, to set the access PIN # for the three lockers to the customer PIN#.

The customer arrives at his residential complex at 6:15 p.m. and enters his PIN #. Upon verifying the PIN #, the appropriate three lockers open and allow the customer to retrieve the order. The IR servers are now notified that the customer has retrieved the order. After a specific period of time has expired (preferably, 5-10 minutes), the IR servers reprogram the available lockers with a generic PIN# (or, possibly, just locks the lockers) such that they are now secured and are available for a subsequent request. Also, the climate control units are turned off on these units, since they are now not needed.

Local Sponsor Example: While online perusing their IdealRental.com community page, a customer discovers that the Best Mediterranean Cuisine restaurant (BMCr) has an account with IdealRental.com near his location and that the restaurant has posted an advertisement for a special that evening on baklava. The customer loves baklava and places a telephone order at 9:00 a.m. with a BMCr representative. While posting the order, the customer specifies delivery before 6:00 p.m. BMCr receives the order from IdealRental.com, determines availability, and indicates that they can fulfill the order. BMCr, utilizing their own delivery service or IdealRental.com's delivery service,

delivers to the customers location at 4:00 p.m. The delivery person approaches the kiosk, chooses “delivery on account”, and inputs the unique PIN # assigned to each local sponsor. The kiosk contacts the IR servers and verifies the account. Once verified, the delivery person is queried by the kiosk as to the size and number of lockers needed for the delivery as well as whether they need to be climate controlled. The delivery person chooses a single medium box, heated. The kiosk queries whether there are any available climate controlled medium lockers. If so, a request is made by the kiosk to the IR servers to reserve the particular type locker. The IR servers respond with an affirmative. The delivery person then enters the name of the resident he is delivering to, or selects the customer’s name from a searchable listing of community residents. At this time several things happen:

1. The locker is opened and the heating unit is turned on;
2. The delivery person places the order in the designated locker and shuts the door;
3. The kiosk notifies the IR servers that a delivery has been made;
4. The IR servers then reprogram the specified locker with the customer PIN#;
5. The IR servers notify the customer that a delivery has been made; and
6. The IR servers note the charge to the account of BMCr for use of the locker.

The customer arrives at 5:40 p.m. and enters his PIN# at the kiosk. The kiosk releases the lock on the specified locker and the customer then retrieves his order. The kiosk then turns off the heating unit and notifies the IR servers that the customer has retrieved his order. The IR servers then reprogram the locker with a generic code (or lock it out completely). The IR servers then update their database with the locker status as being available.



## CLAIMS

1. A system for the automated ordering and delivering of goods comprising:

at least one server for receiving orders for goods;

a box comprising at least one locker for storing the goods;

5 a locking means, in two-way communications with the server, for securing the locker; and

a notification means for notifying a person ordering the goods that the goods have been  
delivered to the locker.

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DELIVERY LOCATIONS

100

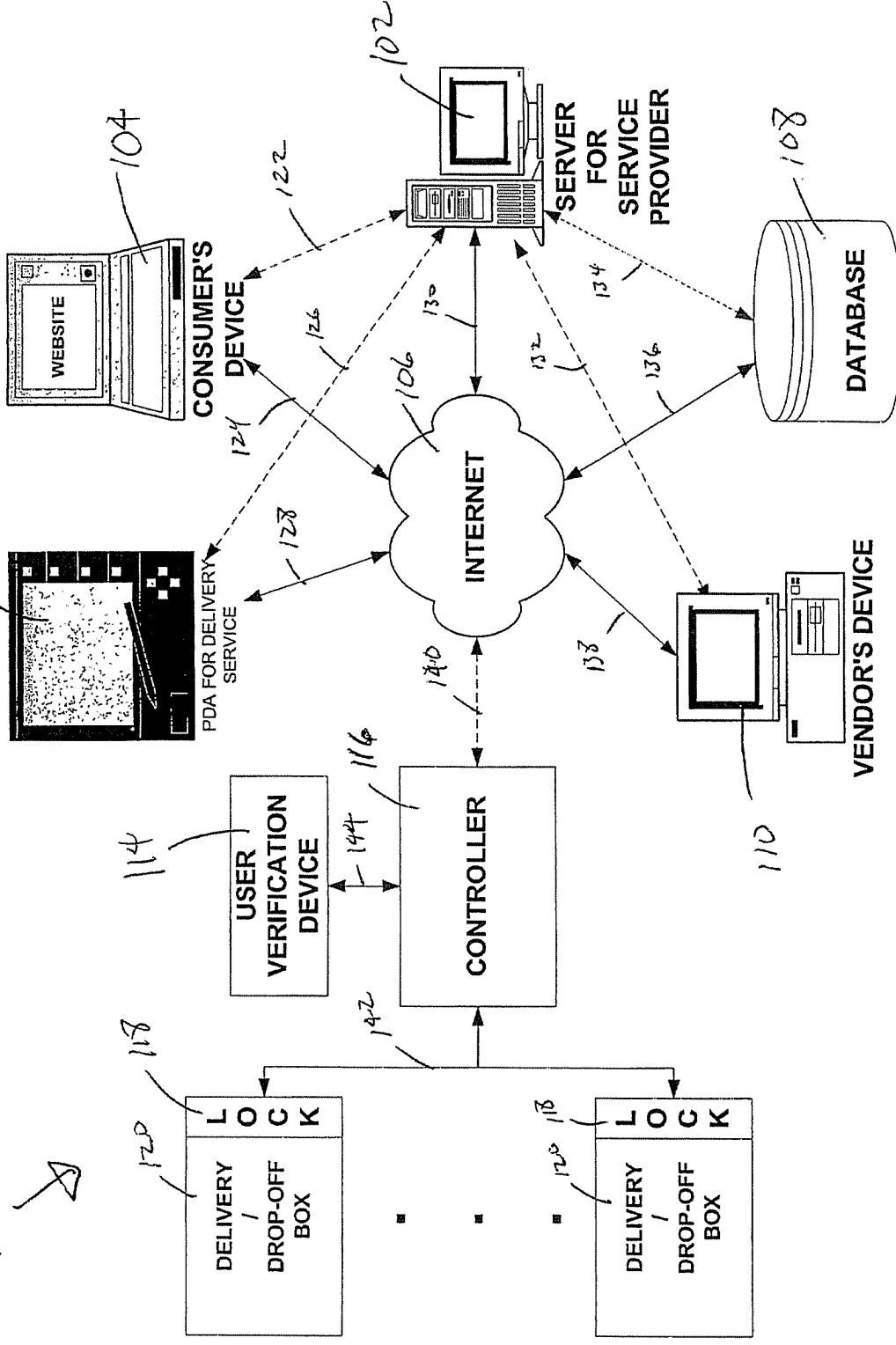
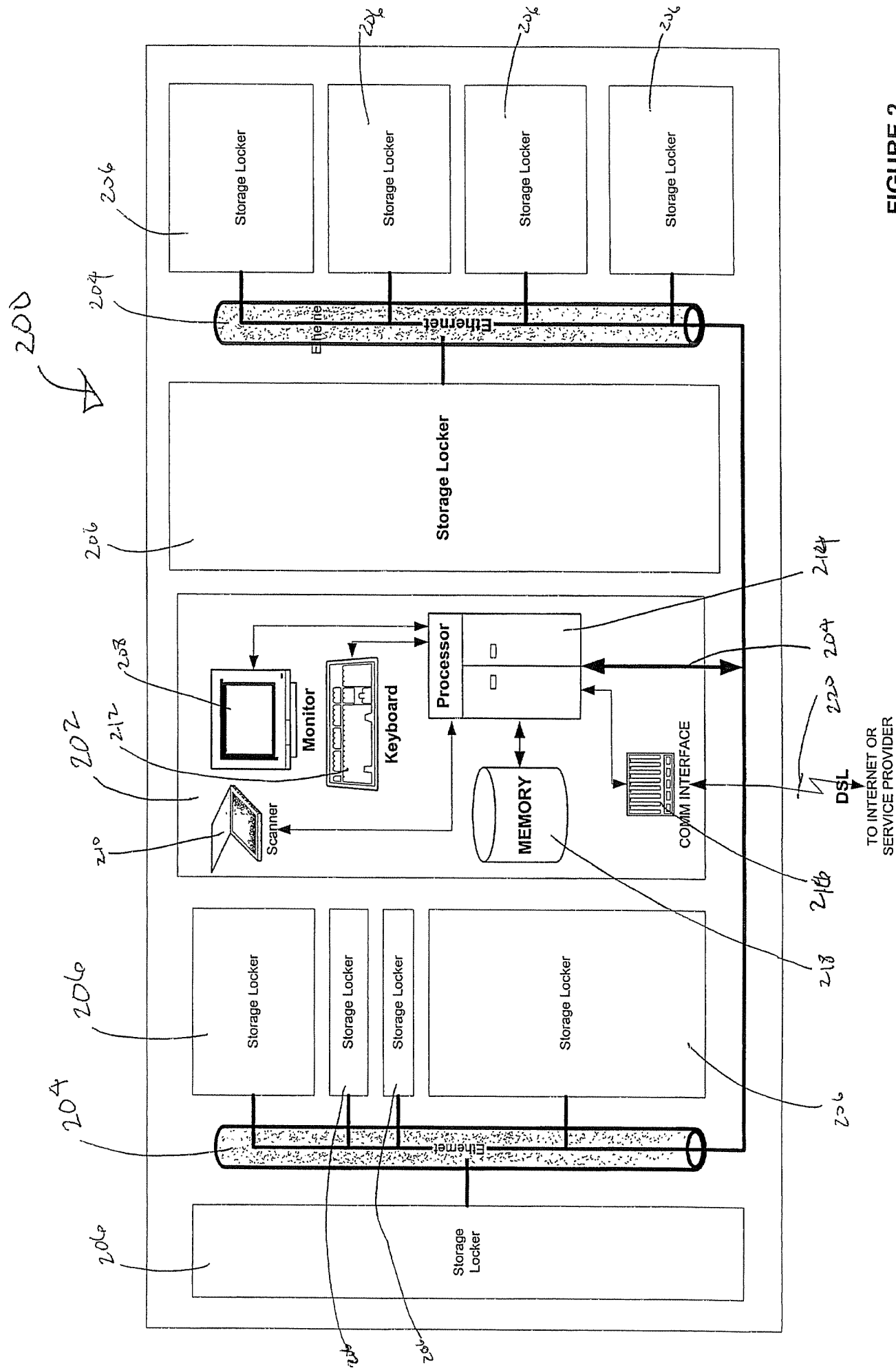


FIGURE 1



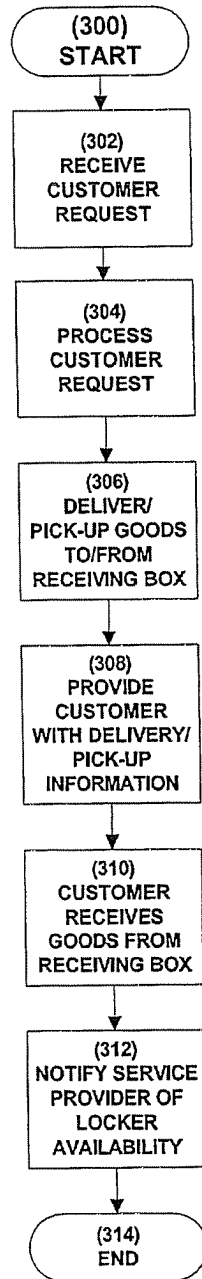


FIGURE 3

FIG. 4

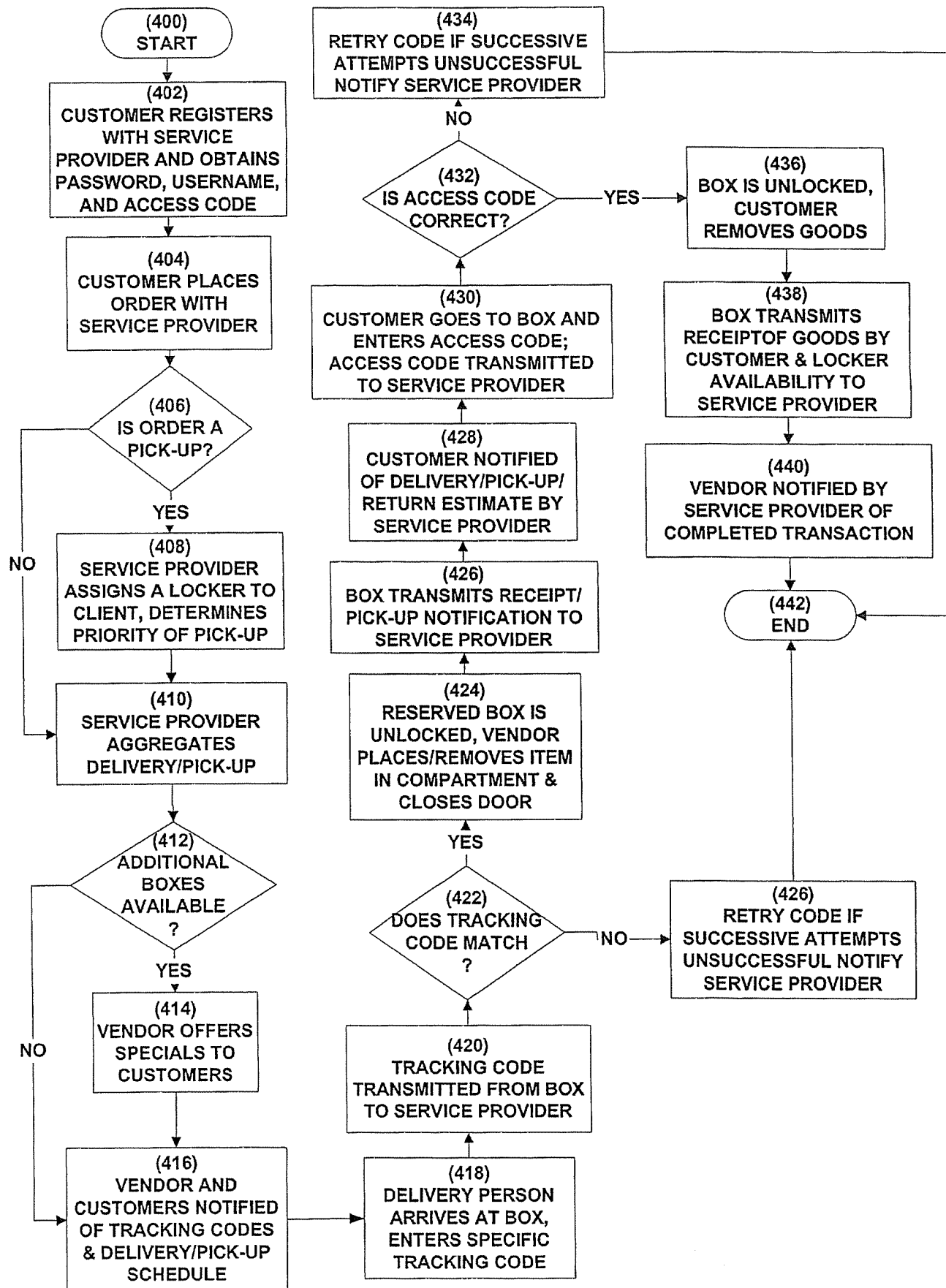


FIGURE 4